Section 1: Product and Company Identification

Product Name: PELCO® Conductive Gold Paste

Synonym: 

Company Name
Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)
Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day
CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day

Section 2: Hazard Identification

GHS Pictograms:

Flammable  Irritant  Health hazard

GHS Categories:
GHS02: Flammable
GHS07: Irritant
GHS08: Health Hazard

Flam. Liqu. 2 H225 Highly flammable liquid and vapor.
Repr. 2 H361 Suspected of damaging fertility or the unborn child.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
Skin Irrit. 2 H315 Causes skin irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.

Signal Word: DANGER

Hazard Statements:
H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements:
P210 Keep away from heat/sparks/open flames/hot surfaces – No smoking.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P303+P361+P353 If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
Health Effects:
NFPA Hazard Rating: Health: 2; Fire: 3; Reactivity: 0
HMIS® Hazard Rating: Health: 2; Fire: 3; Reactivity: 0
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment: A chemical safety assessment has not been carried out.
PBT: ND
vPvB: ND

Emergency overview:
Appearance: Golden brown liquid/paste.
Immediate effects: Irritation.

Potential health effects
Primary Routes of entry: Skin and eye contact, inhalation.
Signs and Symptoms of Overexposure:
Eyes: Causes eye irritation.
Skin: Causes skin irritation. May cause an allergic skin reaction.
Ingestion: ND
Inhalation: Causes respiratory irritation.
Chronic Exposure: May cause damage to organs through prolonged or repeated exposure.
Chemical Listed As Carcinogen or Potential Carcinogen: No
See Toxicological Information (Section11)

Potential environmental effects
See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)</th>
<th>%</th>
<th>OSHA PEL mg/m³</th>
<th>ACGIH TLV mg/m³</th>
<th>NTP Carcinogen</th>
<th>IARC Carcinogen</th>
<th>OSHA regulated Carcinogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold (7440-57-5)</td>
<td>70</td>
<td>NE</td>
<td>NE</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>toluene (108-88-3)</td>
<td>10-25</td>
<td>200 ppm Ceiling: 300 ppm</td>
<td>75 mg/m³ 20 ppm</td>
<td>No</td>
<td>3</td>
<td>No</td>
</tr>
<tr>
<td>ethyl acetate (141-78-6)</td>
<td>2.5-5</td>
<td>1400 mg/m³ 400 ppm</td>
<td>1440 mg/m³ 400 ppm</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>ethanol denatured</td>
<td>2.5-5</td>
<td>1900 mg/m³</td>
<td>1880 mg/m³</td>
<td>No</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>(64-17-5)</td>
<td>cellulose, nitrate (9004-70-0)</td>
<td>propan-2-ol (67-63-0)</td>
<td>bornan-2-one (76-22-2)</td>
<td>(R)-p-mentha-1, 8-diene (5989-27-5)</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>2.5-5 NE</td>
<td>≤ 2.5 980 mg/m³ 400 ppm</td>
<td>≤ 2.5 2 mg/m³</td>
<td>≤ 1.0 NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000 ppm</td>
<td>NE 492 mg/m³ 200 ppm**</td>
<td>19 mg/m³ 3 ppm*</td>
<td>NE 12 mg/m³ 2 ppm**</td>
<td>NE 19 mg/m³ 3 ppm*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000 ppm</td>
<td>NE 400 ppm*</td>
<td>400 ppm</td>
<td>NE 984 mg/m³ 400 ppm</td>
<td>NE 980 mg/m³ 400 ppm*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>3</td>
<td>No</td>
<td>3</td>
<td></td>
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<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Short Term value
**Long Term value

**Section 4: First Aid Measures**

If accidental overexposure is suspected

Eye(s) Contact: Rinse opened eye for several minutes under running water.
Skin Contact: Immediately wash with water and soap and rinse thoroughly.
Inhalation: Supply fresh air and call for a doctor.
Ingestion: If symptoms persist, consult a doctor.

**Note to physician**

Treatment: ND
Medical Conditions generally Aggravated by Exposure: ND

**Section 5: Fire Fighting Measures**

Flash Point: 4° C (39° F)
Flammable Limits: Lower: 1.2 Vol %  Upper: 7.0 Vol %
Auto-ignition point: Product is not self-igniting.
Fire Extinguishing Media: CO₂, sand, or extinguishing powder. Do not use water or water with full jet.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full protective gear.
Unusual Fire and Explosion Hazards: ND
Hazardous combustion products: Carbon dioxide/carbon monoxide.
DOT Class: Flammable liquid.

**Section 6: Accidental Release Measures**

Steps to be Taken in Case Material is Released or Spilled: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Use respiratory protective device against the effects of fumes/dust/aerosol. Wear protective clothing.
Environmental precautions: Prevent seepage into sewage system, work pits, and cellars. Inform respective authorities in case of seepage into water course or sewage system. Do not allow to enter sewers/surface or ground water.
Methods and materials for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust.) Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation. Do not flush with water or aqueous cleansing agents.
Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage
Storage temperature: Ambient or lower.
Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection
Ingredients with biological limit values:

108-88-3 toluene
BEI 0.02 mg/L
Medium: blood
Time: prior to last shift of workweek
Parameter: toluene

0.03 mg/L
Medium: urine
Time: end of shift
Parameter: toluene

0.3 mg/g creatinine
Medium: urine
Time: end of shift
Parameter: o-Cresol with hydrolysis (background)

67-63-0 propan-2-ol
BEI 40 mg/L
Medium: urine
Time: end of shift at end of workweek
Parameter: Acetone (background, nonspecific)

Engineering Controls
Ventilation required: Ensure adequate ventilation.

Personal Protection Equipment
Protective gloves: Only use chemical protective gloves with CE-labeling of category III. After use of gloves apply skin-cleaning agents and skin cosmetics.
Skin protection: Appropriate protective clothing.
Eye protection: Tightly sealed goggles.
Additional clothing and/or equipment: Eye wash facility available.

Exposure Guidelines
See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties
Appearance and Physical State: Gold brown liquid/paste.
Odor (threshold): Mild
Specific Gravity (H₂O=1): ND
### Section 10: Stability and Reactivity

**Stability:** Stable under recommended storage conditions.

**Conditions to Avoid:** ND

**Materials to Avoid (Incompatibility):** Strong oxidizers, acids, and alkalis.

**Hazardous Decomposition Products:** None known.

**Hazardous Polymerization:** Will not occur.

### Section 11: Toxicological Information

**LD/LC50 values that are relevant for classification:**

<table>
<thead>
<tr>
<th></th>
<th>Oral</th>
<th>Dermal</th>
<th>Inhalative</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>108-88-3 toluene</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>12124 mg/kg (rbt)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50/4 h</td>
<td>28.1 mg/l (rat)</td>
<td></td>
</tr>
<tr>
<td><strong>141-78-6 ethyl acetate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>11300 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5620 mg/kg (rbt)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>&gt; 18000 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50/1 h</td>
<td>200 mg/l (rat)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50/4 h</td>
<td>1600 mg/l (rat)</td>
<td></td>
</tr>
<tr>
<td><strong>64-17-5 ethanol denatured</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>5560 mg/kg (guinea pig)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>3450 mg/kg (mouse)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>6300 mg/kg (rabbit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>7060 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>LC50/4 h</td>
<td>20000 mg/l (rat)</td>
<td></td>
</tr>
<tr>
<td><strong>9004-70-0 Cellulose, nitrate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>&gt; 2000 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td><strong>67-63-0 propan-2-ol</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>5045 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>12800 mg/kg (rbt)</td>
<td></td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
<td>30 mg/l (rat)</td>
<td></td>
</tr>
<tr>
<td><strong>5989-27-5 (R)-p-mentha-1, 8-diene</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50</td>
<td>4400 mg/kg (rat)</td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
<td>&gt; 5000 mg/kg (rabbit)</td>
<td></td>
</tr>
</tbody>
</table>

Primary irritant effect:
On the skin: Irritant to skin and mucous membranes.
On the eye: No irritating effect.
Sensitization: Sensitization possible through skin contact.

Human experience: ND
This product does contain compounds listed by NTP or IARC or regulated by OSHA as a carcinogen: toluene (108-88-3), ethanol denatured (64-17-5) propan-2-ol, (67-63-0) (R)-p-mentha-1, 8-diene (5989-27-5)

Section 12: Ecological Information
Ecological Information:

Aquatic toxicity:

<table>
<thead>
<tr>
<th>108-88-3 toluene</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50/30 min</td>
</tr>
<tr>
<td>EC50/48 h</td>
</tr>
<tr>
<td>IC50/72 h</td>
</tr>
<tr>
<td>LC50/96 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>141-78-6 ethyl acetate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC10/18 h</td>
</tr>
<tr>
<td>EC50/48 h</td>
</tr>
<tr>
<td>IC50/48 h</td>
</tr>
<tr>
<td>LC50/48 h</td>
</tr>
<tr>
<td>LC50/96 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>64-17-5 ethanol denatured</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50/24 h</td>
</tr>
<tr>
<td>LC50/48 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>9004-70-0 Cellulose, nitrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50</td>
</tr>
<tr>
<td>EC50/48 h</td>
</tr>
<tr>
<td>EC50/72 h</td>
</tr>
<tr>
<td>LC0/96 h</td>
</tr>
<tr>
<td>LC50/96 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>67-63-0 propan-2-ol</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC50/72 h</td>
</tr>
<tr>
<td>LC50/96 h</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>5989-27-5 (R)-p-mentha-1, 8-diene</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
</tr>
</tbody>
</table>

Remark: Harmful to fish.
Water hazard class 2: Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground. Harmful to aquatic organisms.
Chemical Fate Information: ND

Section 13 Disposal Considerations
Section 14: Transportation Information
US DOT Information: Proper shipping name: Flammable liquids, n.o.s. (Toluene, Ethyl acetate)
Hazard Class: 3
Packaging group: II
UN Number: UN1993
IATA: Proper shipping name: Flammable liquids, n.o.s. (Toluene, Ethyl acetate)
Hazard Class: 3
Packaging group: II
UN Number: UN1993
IMO: Proper shipping name: Flammable liquids, n.o.s. (Toluene, Ethyl acetate)
Class: 3
UN Number: 1993
Packaging group: III
EMS: F-E, S-E
Marine Pollutant: No
Canadian TDG: Flammable liquids, n.o.s. (Toluene, Ethyl acetate)

Section 15: Regulatory Information
United States Federal Regulations
SARA Section 355: Substance not listed.
SARA Section 313: toluene (108-88-3) is listed. Propan-2-ol (67-63-0) is listed.
RCRA: Ethyl Acetate (141-78-6): U112; Toluene (108-88-3): U220
TSCA: All components are listed on the TSCA public inventory.
CERCLA: Ethyl Acetate (141-78-6): RQ = 5000 lbs (2270 kg); Toluene (108-88-3): RQ = 1000 lbs (454 kg)
State Regulations
California Proposition 65:
toluene (108-88-3): Chemicals known to cause reproductive toxicity for females.
toluene (108-88-3), ethanol (64-17-5): Chemicals known to cause developmental toxicity.
International Regulations
Canada WHMIS: ND

Section 16: Other Information
Label Information: Flammable
European Risk and Safety Phrases: ND
European symbols needed: ND
Canadian WHMIS Symbols: ND
Abbreviations used in this document
NE= Not established
NA= Not applicable
NIF= No Information Found
ND= No Data

Disclaimer
Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is presented in good faith and believed to be accurate, it should be considered only as a supplement to other
information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.

SDS Form 0013F1V4